

CLAIMS

1. An image display system comprising: a liquid crystal display panel which can transmit light irradiated from behind; a light source for irradiating a light having a specific polarization and a light having a polarization orthogonal to the specific polarization onto the liquid crystal display panel, a filter disposed between the liquid crystal display panel and the light source and comprises first areas for transmitting the light having the specific polarization and second areas for transmitting the light having the polarization orthogonal to the specific polarization disposed repeatedly in the vertical direction; the light source comprising a light emitting source for emitting light which has no specific polarization, polarizing means for outputting the light which has no specific polarization in the forms of the light having the specific polarization and the light having the polarization orthogonal to the specific polarization, optical means for refracting the lights having the different polarizations into the directions toward the left and right eyes respectively and irradiating the same onto the liquid crystal display panel, characterized in that the light-emitting source is a linear light-emitting source which is disposed in the lateral direction with respect to the liquid crystal display panel so that a light source member for displaying three-dimensional images comes to the center portion and light source members for enlarging angle of visibility come to both sides, the linear light-emitting source comprises center prisms which increase brightness by reducing

the irradiating range of the linear light-emitting source at the center portion of the linear light-emitting source, and peripheral prisms having a different brightness from the center prisms disposed at both ends of the linear light-emitting source.

2. The image display system according to Claim 1, characterized in that the linear light-emitting source includes linearly disposed plurality of point light-emitting sources, and the center prisms and the peripheral prisms each includes a light receiving surface which allows light from the point light-emitting sources to enter and a light-outputting surface which outputs light entered from the light receiving surface and then corrected in optical path, which are disposed in one-to-one relation with respect to the respective point light-emitting sources.

3. The image display system according to Claim 2, characterized in that the light-outputting surfaces of the center prisms and the peripheral prisms are arranged without gap therebetween.

4. The image display system according to Claim 2, characterized in that the center prisms and the peripheral prisms are disposed in one-to-one relation with respect to the respective point light-emitting sources.

5. The image display system according to Claim 2, characterized in that the center prisms and the peripheral prisms are provided separately for the center portion of the linear light-emitting source and the both ends of the linear light-emitting source, and formed integrally via the peripheral portions of the light-outputting surfaces corresponding to the predetermined number of point

light-emitting sources.

6. The image display system according to any one of Claim 2 to Claim 5, characterized in that the point light-emitting sources are arranged at high density at the center portion of the linear light-emitting source and at low density at both end portions of the linear light-emitting source.

7. The image display system according to any one of Claim 1 to Claim 5, characterized in that the center prisms and the peripheral prisms include wedge shaped prisms each having a light-receiving surface facing the point light-emitting sources and a light-outputting surface facing the liquid crystal display panel surface, and at least one of the opposing side surfaces of the wedge shaped prism with respect to the liquid crystal display panel is formed into a curved plane.

8. The image display system according to Claim 6, characterized in that the center prisms and the peripheral prisms include wedge shape prisms each having a light-receiving surface facing the point light-emitting sources and a light-outputting surface facing the liquid crystal display panel surface, and at least one of the opposing side surfaces of the wedge shaped prism with respect to the liquid crystal display panel is formed into a curved plane.

9. The image display system according to Claim 7, characterized in that the other opposing side surface of the wedge shaped prism is formed into a flat plane.

10. The image display system according to Claim 8, characterized in that the other opposing side surface of the wedge

shaped prism is formed into a flat plane.

11. The image display system according to any one of Claim 1 to Claim 5, characterized in that the light-outputting surfaces of the center prisms and the light-outputting surfaces of the peripheral prisms are positioned at substantially a uniform distance to the center portion of the liquid crystal display panel.

12. The image display system according to Claim 6, characterized in that the light-outputting surfaces of the center prisms and the peripheral prisms are positioned at substantially a uniform distance toward the center of the liquid crystal display panel.

13. A light source unit comprising a light source member for observation from the front at a center portion and light source members for enlarging the angle of visibility at both end portions for emitting light linearly and irradiating on a liquid crystal display panel from behind via optical means which refracts and irradiates light onto the liquid crystal display panel, configured in such a manner that the center prisms for reducing an irradiating range of the linear light-emitting source to increase the brightness are disposed at the center portion of the linear light-emitting source, and peripheral prisms having a brightness different from the center prisms are disposed on both end portions of the linear light-emitting source.